

lapse in the major premise is not altogether unapparent to those who recall the fostering care of botanists—such as Darwin for example—while putting the infant industry of the zoologists on its feet. Why, even Huxley looks upon his long zoological training-course as a means of fitting him for extended study of the Gentians. An additional and quite unanswerable argument is brought forward, however, in the *Naturalist* editorial. “On a broad etymological basis the use of the word by zoologists is wrong,” observes the writer. And then he straightway insists upon the right to use it. The peculiar appropriateness of an incorrect word for a one-sided, incorrect science is felt by us all. Indeed, as an additional evidence of true “biological” wrath at the philological pharisees and purists, the “prominent zoologist” proudly parades in his GAZETTE letter a Greek termination which we sincerely hope is not to be found elsewhere. At least the dictionaries, being written on the much despised “broad etymological basis” may be relied upon to exclude it.

Apparently the trouble with the prominent zoologist is this: In college days he was probably brought under the influence of Dr. Mark Hopkins, of venerated memory, and he has adopted one of the contestable *dicta* of his early philosophic mentor. It was a pleasing idiosyncrasy of Dr. Hopkins to insist that a “profound abyss” yawned between plants and animals. “Certainly,” thinks the disciple. “‘Life’ characterises animals and, since there is the profound abyss I learned about, plants must be in a condition of partial paralysis and the biologist should shun them.” This is what the editor of the *Naturalist* means when he speaks of the “living side” of the plant-world as if there was any side *not* alive. The same confused, altho Hopkinsesque, notions of plants and animals so characteristic of half-biologists, are shown again in the *Naturalist* editorial when it is said—“fully one-half of the teachers of botany are unable to give any of the living side of their subject. * * * The zoologist teaches *all that is taught* of life.” The intimation is plain that the “living side” taught by the other half of the botanists is very different from the “life” (or in the *original* Greek *Bion*) which zoologists wish to claim as their peculiar province. A little less slavish knuckling down to the Mark Hopkins school, a little more Greek and a good deal more biology would make the “prominent zoologist” something of an orthographic authority.—AN OBSCURE AND ORDINARY BOTANIST.

Labeling specimens for the herbarium.

The usefulness of the herbarium is largely determined by the excellence of the labelling. Bearing this in mind, I cast about for a method of labelling the specimens in my herbarium, and, finally after having read of the methods used here and there and finding none that suited me exactly, I thought of the following way which has proved one of so great neatness, excellence, fulness and easeness as to lead me to mention it for the instruction of others who desire to render their collections more serviceable. In labelling my herbarium I used the printed names and descriptions clipped directly from the revised Manual. I labelled my shelves with the printed ordinal name, but could not use the descriptions. The genus covers have the generic

name and description neatly pasted upon them. Each species paper has the generic initial and the specific name and description pasted upon it. This method virtually converts my herbarium into an invaluable *illustrated Gray's Manual*, and in my opinion is more handy than it would have been had I adopted the methods currently advocated.—WM. E. ANDREWS, *Blackburn University, Carlinville, Ill.*

NOTES AND NEWS.

MR. E. J. HILL is writing a series of articles for *Garden and Forest*, on the autumn flora of the Lake Michigan pine-barrens.

M. W. BEYERINCK has succeeded in isolating some of the very small algæ by a modification of the gelatine-plate process used by bacteriologists. Cf. *Bot. Zeit.*, 48, 725.

THE *Journal de Botanique* (Nov. 16), contains an account of the *Piperaceæ* of Ecuador, New Grenada, and Peru, in the collection of M. Ed. André, with descriptions of many new species, by M. C. De Candolle.

M. E. BOURQUELOT has examined the sugar in a large number of species of *Boletus*, as well as some *Amanitas*. He finds the sugar when the plants are young to be almost always tréhalose (2.7—7.8 per cent.), which is replaced with increasing age by mannite.

DR. THOMAS MORONG has returned from his long South American trip, and has been appointed curator of the herbarium of Columbia College. Mr. Morong is to be congratulated upon his successful trip, and upon the very congenial and fitting position that he found awaiting his return.

A VERY INTERESTING discovery of an arctic plant in Alpine regions, was made last summer by Professor M. A. Carleton, of Garfield University, Wichita, Kansas. *Douglasia arctica* Hook., known only from our northwestern arctic seashores, and poorly known even from that locality, was discovered on Pike's Peak, Colorado.

AN ELEVATION of temperature of 20° C., due to growth was observed by H. Devaux (*Bull. Soc. Bot. de France*, xxxvii, 168) in a pile of stored potatoes that had produced sprouts a foot or so long. The surrounding air indicated 18 to 19° C., the tubers on the outside of the pile 1 or 2 degrees higher, and at the center of the pile, 2 meters from the surface, the temperature stood at 39° C.

MM. SCHLOESING, JR. AND LAURENT have shown by a direct method that the Leguminosæ can fix free nitrogen. Instead of determining the amount of N in the seed and subsequently the amount in the crop, they measured the N, O, and CO₂ introduced into a chamber with growing plants. After three months they again determined these gases, when the N was found to have diminished. Every precaution seems to have been taken against error.